

Appln No. 09/618,965

Amdt date May 28, 2004

Reply to Office action of April 2, 2004

REMARKS/ARGUMENTS

Claims 1-80 and 83-84 are pending in this application. Claims 1, 24, 42, 43, 44, 67, and 83-84 are amended, and claims 81-82 are cancelled.

Claims 1-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over You (U.S. Patent 6,158,045) in view of Cardoza et al. (U.S. Patent 5,630,049). In view of the above amendments and following remarks, Applicants respectfully submit that the application is in condition for allowance, therefore, reconsideration and allowance of the application are respectfully requested.

Independent claims 1, 42, and 83 include, among other limitations, "dynamically allocating a plurality of services to a plurality of processors in the multi-channel, multi-service system for execution," and "selecting a target construct from the dynamically allocated executing plurality of services for debugging;" and independent claim 44 includes, among other limitations, "a plurality of services dynamically allocated to a plurality of processors in the multi-channel, multi-service system," and "a target construct selected from the dynamically allocated plurality of services."

Applicants respectfully submit that the cited references, alone or in combination, do not disclose or suggest the above-recited limitations.

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Rather, You et al. teaches that "interactive program debuggers allow the user to inspect and control the execution of programs. They may also allow the user to modify the program's state and change the program's execution to behavior that is different from the semantics of the original source programs." (You et al., col. 6, lines 37-43). There is no suggestion in the cited text of You about "dynamically allocating a plurality of services to a plurality of processors in the multi-channel, multi-service system for execution," and "selecting a target construct from the dynamically allocated executing plurality of services for debugging."

Similarly, Cardoza et al. discloses a target computer system that may operate in one of two modes, polling mode, or interrupt-driven mode. Cardoza et al. further teaches that when "in polling mode, the target computer system is in a frozen or stopped state to enable, for example, examination of a programming variable that is used in operating system code being tested, and examination of register contents. Further, in polling mode, many of the target computer system's normal operations are suspended and the target computer system generally operates under the control of the remote debugger." (Col. 10, lines 56-66, emphasis added). Therefore, similar to You, Cardoza does disclose or suggest "dynamically allocating a plurality of services to a plurality of processors in the multi-channel, multi-service system for execution," and "selecting a target construct from the dynamically allocated executing plurality of services for debugging."

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Thus, independent claims 1, 42, 44, and 83 are patentable over You and Cardoza. Applicants further submit that dependent claims 2-23, and 45-67 that depend directly or indirectly from claims 1 and 44, respectively are allowable as are claims 1 and 44, and for additional limitations recited therein.

Independent claims 24, 43, and 84 include, among other limitations, "maintaining an isolated debugging environment for each of the plurality of running services, wherein the isolated debugging environment provides a separate context for each running service," "selecting a target construct for debugging from the plurality of running services," and "dynamically loading one or more of the plurality of running services into the target construct;" and independent claim 67 includes, among other limitations, "an operating system maintaining an isolated debugging environment for each of the plurality of running services, wherein the isolated debugging environment provides a separate context for each running service," "a debug core configured to select a target construct for debugging from the plurality of running services upon a user request," and "means for dynamically loading one or more of the plurality of running services into the target construct."

Applicants respectfully submit that the cited references, alone or in combination do not disclose or suggest the above-recited limitations.

As noted by the Examiner, Cardoza et al. discloses an "apparatus for software testing in an efficient, isolated, flexible, and controlled software testing environment which

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improves software engineering productivity, increases product quality, and reduces the use of computer resources and developer time." (Col. 2, lines 35-41). The debugging system of Cardoza et al. includes "a computer network that comprises a host computer system and a target computer system. The software being tested resides in the target computer system. The host computer system includes a host operating system and a software debugger that controls testing of the software. The method comprising the steps of establishing, using the software debugger, a network connection between the host and the target computer system, transitioning the target computer system into a stopped state in which it awaits input from the host computer system..." (Col. 2, lines 44-52).

Cardoza does not however disclose or suggest "maintaining an isolated debugging environment for each of the plurality of running services, wherein the isolated debugging environment provides a separate context for each running service," and "dynamically loading one or more of the plurality of running services into the target construct."

Applicants therefore respectfully submit that claims 24, 43 and 67 novel and unobvious over the cited references and are therefore allowable. Applicants further submit that claims 25-41 and 68-80 that depend directly or indirectly from claims 24 and 67, respectively are allowable as are claims 24 and 67, and for additional limitations recited therein.

In view of the foregoing amendments and remarks, it is respectfully submitted that this application is now in condition

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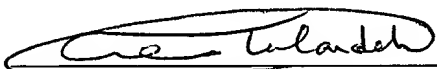
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for allowance, and accordingly, reconsideration and allowance
are respectfully requested.

Respectfully submitted,

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